Inventors: von Merveldt, A.. Appl. Ser. No.: 10/744,989

Atty. Dkt. No.: 5991-00800/EBM

A. <u>Pending claims:</u>

Claims 1-12 stand rejected. Claims 1-8 are presently amended. Claims 1-12 are pending in the

case.

B. Claim Objections:

Claim 4 was objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to

further limit the subject matter of a previous claim. Applicant has amended claims 3 and 4 accordingly.

The feature "and wherein the bends extend at substantially right angles to the length of said webs or ribs" has

been removed from original claim 3. In claim 4, the feature "wherein the bends defining the corners of said

generally rectangular cross-sectional tubular element extend at substantially right angles to the length of said

webs or ribs" has replaced the original feature "in which the bends are formed by heat softening the material

along the lines of the bends and allowing it to cool in the bent condition" Applicant has also amended claim 1 and

6 to correct typographical errors.

C. The Claims Are Novel Over Baker:

Claims 1 and 8 were rejected under 35 U.S.C. §102 (b) for allegedly being anticipated by U.S. Patent No.

6,213,305 to Baker et al. ("Baker"). The position outlined on pages 2 and 3 of the Office Action is that

Baker teaches with regard to claim 1 "a bulk bag (Fig 1 reference number 10) having flexible side walls; a

bottom wall configured to define, with the sidewalls, a generally rectangular shape of bag and a pair of

laterally spaced generally flexible sleeves (26) associated with the bottom wall and each of which

operatively receives a generally rigid tubular element (28)."

Applicant has amended claim 1 to include the feature "wherein each of the flexible sleeves are at

least partially defined by the bottom wall and one of the flexible sidewalls, and wherein each of the flexible

sleeves operatively receives a generally rigid tubular element adapted to receive a tine of a forklift truck, in

use..." Support for this amendment may be found in the specification as filed at least on page 4, line 30-page

5, line 8, and in Figures 1 and 3. Applicant believes that Baker appears to be silent on at least this feature.

Baker appears to teach "[a] pair of tubular fork tine receiving members 24 are arranged in parallel

spaced relation across bottom 18 of body 16, such that fork tines from a forklift are insertable into

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receiving members 24 to lift body 16" (Baker, Col. 2, lines 50-55 and Figure 1). Applicant notes that Baker's sleeve inserts are associated with the bottom surface of the bag, where they appear to function in a supportive capacity. In this regard, Baker states "[r]eferring to FIG. 3, first insert 28 is inserted into sleeve 26 so that top member 32 lies in a substantially coplanar attitude with and supports bottom 18 of body 16" (Baker, Col. 3, lines 15-18) and "[w]hen second insert 52 is inserted into sleeve 26, top member 32 lies in a substantially coplanar attitude with and supports bottom 18 of body 16." (Baker, Col. 4, lines 7-10). Applicant therefore respectfully submits that Baker does not appear to teach or suggest the combination of features found in amended claim 1.

Applicant recognizes various drawbacks to the bulk bags described by Baker and other references.

Applicant's specification states, for example:

US patents 6,213,305 and 6,467,625 and corresponding publications disclose a number of different bulk bags having flexible sleeves depending from the bottom of the bag for accommodating forklift tine receiving members. One of the problems addressed by these patents is maintaining the so-called receiving members (that applicant terms tubular elements) within the flexible sleeves and various possibilities are put forward that are based on either elastic regions to the sleeves, typically at the entrances to the sleeves, or involve the clipping of two extrusions together with parts of the sleeves being clamped between the two parts.

Elastic entrances to the sleeves effectively narrow the entrances to the receiving members and make it more difficult for a forklift truck driver to align the free ends of the tines with the openings. This, accordingly, increases the already present possibility that the side of the bag immediately adjacent the entrance to such a tubular element may be damaged by the tines of the forklift truck during attempts to align the tines with the interior of the tubular element. Also, the alternative constructions, namely a pair of cooperating clipping extrusions, are expensive; relatively complicated; and also suffer from the disadvantage that reinforcing ribs transverse to the length of the extrusions cannot be easily formed. The alternative of injection moulding such components is also extremely expensive with die-costs for such large items generally being substantial. Still further, the positioning of the receiving members beneath the bottom of the bag means that they need to be stronger in view of the added weight exerted on them by this configuration, in use.

(Specification, page 2, line 20 – page 3, line 11)

In response to such drawbacks of exiting bulk bags, Applicant devised a bulk bag that includes, but is not limited to the feature of "wherein each of the flexible sleeves are at least partially defined by the bottom wall and one of the flexible sidewalls." Forming flexible sleeves in such a manner offers unforeseen advantages over the bulk bag of Baker. For example, Applicant's specification teaches:

It is an object of this invention to provide a bulk bag and tubular time receiving elements that are simple to produce and wherein the maintenance of the members within a flexible sleeve or pocket is achieved in a simple and inexpensive manner and wherein at least some protection may be afforded to a bag at the entrance to a tubular element. (Specification, page 3, lines 15-20)

In each of the two aspects of the invention defined above the laterally spaced sleeves are formed within the general rectangular shape of the bag such that, in use, the bottom of the bag is substantially coplanar with a bottom wall of each of the spaced sleeves. This is most easily achieved by stitching inserts to the inside of the side and bottom walls of the bulk bag to provide a top wall and one side wall to each of the spaced sleeves with a bottom wall and the other side wall of each sleeve being defined by the bottom wall and side wall of the bulk bag itself, apertures being formed at each end of the sleeves for providing for insertion of the tubular elements therein.

(Specification, page 4, line 30 – page 5, line 7)

Applicant submits that at least this feature, in combination with the other features of claim 1, are not taught of suggested by Baker.

With regard to claim 8, the Examiner states "wherein each tubular element has, at one end thereof, outwardly directed/integral flange formations (Fig 5 reference number 60; see also column 4, lines 20-23) formed by bends in the material with the bends being at right angles (Fig 5 at reference number 36) to a length of the tubular shape, and means (72) at either end (both ends are identical) for inhibiting movement of said other end." Applicant respectfully disagrees with this assertion.

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). "The identical invention must be shown in as complete detail as is contained in the ... claim." *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). The elements must be arranged as required by the claim, but this is not an *ipsissimis verbis* test, i.e., identity of terminology is not required. *In re Bond*, 910 F.2d 831, 15 USPQ2d 1566 (Fed. Cir. 1990).

Claim 8 includes the feature "in which one end of each tubular element has integral flange formations formed by bends in the material from which the tubular element is made with the bends being

at right angles to a length of the tubular shape" in combination with the features set forth in claim 1, which include "wherein each tubular element has, at one end thereof, outwardly directed flange formations for preventing movement of the said end into the sleeve, in use, and means at the other end for inhibiting movement of said other end into the sleeve, in use." Applicant submits that Baker does not appear to teach or suggest at least this combination of features.

The cited section of Baker states:

Fork tine receiving member 24 is a sleeve 26 with a second embodiment of insert generally identified by reference numeral 52. Referring to FIG. 5, second insert 52 is substantially similar to first insert 28, but with the additional feature that sidewall 30 has an angular 'J' shaped foot 60 forming a channel 62 external to and along the length of a bottom edge 36 of sidewall 30. A mating component 66 is provided that has a planar base 68 with opposed parallel edges 70. An angular hook shaped member 72 extends along the length of each edge 70, spaced above top face 74 of base 68. Hook member 72 has an engagement lip 78. Referring to FIG. 6, second insert 52 fits loosely within sleeve 26. When second insert 52 is inserted into sleeve 26, top member 32 lies in a substantially coplanar attitude with and supports bottom 18 of body 16. A rectangular fork tine receiving member 24 having a cavity 38 is thereby formed by top member 32, pair of sidewalls 30 and a spanning section 40 of sleeve 26 spanning a space between bottom edges 36 of sidewalls 30. Cavity 38 so formed is ready to receive a fork tine (not shown) from a forklift.

(Baker, Col. 3, line 62 – Col. 4, line 16)

Thus, it appears that the "flanges" allegedly taught by Baker (Fig. 5 element 60) are different in both structure and function to the flanges of claims 1 and 8. Rather than teaching Applicant's feature "in which one end of each tubular element has integral flange formations," Baker instead appears to teach an embodiment of an insert "with the additional feature that sidewall 30 has an angular 'J' shaped foot 60 forming a channel 62 external to and along the length of a bottom edge 36 of sidewall 30" (Baker, Col. 3, line 65). Furthermore, rather than teaching "wherein each tubular element has, at one end thereof, outwardly directed flange formations for preventing movement of the said end into the sleeve, in use, and means at the other end for inhibiting movement of said other end into the sleeve, in use," Baker contemplates preventing slippage of the insert from the sleeve using a separate "mating component 66" (see e.g., FIG. 5 and FIG. 6) to be coupled to the "J"-shaped foot running along the side wall. In this regard, Baker states: "Referring to FIG. 7, mating component 66 mates with 'J' shaped foot 60 on each opposed sidewall 30 of second insert 52. When so mated, engagement lip 78 of hook member 72 is positioned in channel 62 of 'J' shaped foot 60. This clamps second insert 52 onto spanning section 40 of sleeve 26, thereby precluding second insert 52 from accidentally being withdrawn through opening 48 of sleeve 26." (Baker, Col. 4, lines 15-25).

In light of the arguments set forth above, Applicant respectfully submits that claims 1 and 8 are novel and patentable over Baker. Removal of the 35 U.S.C. §102 rejections against claim 1 and 8 is respectfully requested.

D. The Claims Are Unobvious Over The Cited Art:

Claims 2-7 were rejected under 35 U.S.C. §103(a) for allegedly being obvious over Baker in view of U.S. Patent No. 6,041,718 to Brandes et al. ("Brandes").

With respect to claims 2, 3 and 6, the Examiner has taken the position that, while Baker "does not disclose that the tubular elements are composed of a flat sheet of plastic material having a series of integral spaced parallel webs or ribs of material strengthening the sheet wherein bends define the corners of said generally rectangular cross-sectional configuration and wherein the bends extend at substantially right angles to the length of said webs or ribs bent along the corners of said generally rectangular cross-sectional configuration to define said tubular element," such features are disclosed in FIG. 13 reference number 106 and column 9, lines 27-34 of Brandes. Applicant respectfully disagrees with these rejections but has nevertheless amended claim 2 to expedite prosecution to include the features "wherein each of the flexible sleeves are at least partially defined by the bottom wall and one of the flexible sidewalls, and wherein each of the flexible sleeves receives a generally rigid tubular element adapted to receive a tine of a forklift truck, in use, and wherein each tubular element is made to a generally rectangular cross-sectional configuration and is composed of a sheet of thermoplastic material heat-shaped to form bends defining the generally rectangular cross-sectional configuration of said tubular element" Support for the amendment may be found in the specification as filed at least on page 4, line 30-page 5, line 8, on page 8, second full paragraph, and in Figures 1 and 3.

Applicant submits that for at least the reasons set forth above in section C of this response, Baker appears to be silent on the feature "wherein each of the flexible sleeves are at least partially defined by the bottom wall and one of the flexible sidewalls." Applicant further submits that Brandes fails to teach or suggest the feature "wherein each tubular element is made to a generally rectangular cross-sectional configuration and is composed of a sheet of thermoplastic material heat-molded to form bends defining the generally rectangular cross-sectional configuration of said tubular element." Instead, Brandes appears to teach:

"leg wrap support members 106 are fabricated by scoring a multi-ply corrugated leg-wrap sheet 107 on one side and bending the sheet 107 around the plurality of spaced apart and parallel scores forming creases 108 therealong and panel sections there inbetween. The creases 108 separate the corrugated sheet 107 into wide top and bottom panel sections having alternating narrow side sections thereinbetween. More particularly, a first wide panel section 110 and second wide panel section 112 are hingeably connected together by a first narrow side panel section 114 positioned thereinbetween. A second narrow side panel section 116 is hingeably connected to the first wide panel section 110, and a third narrow side panel section 118 is hingeably connected to the second wide panel section 112." (Brandes, Col. 9, lines 29-42).

Applicant notes that rather than "a sheet of thermoplastic material heat-molded to form bends defining the generally rectangular cross-sectional configuration," Brandes appears to teach "hingible connection" between the wide panel section and the narrow side panel sections of the leg wrap support members (see e.g., FIG. 7). During use "[a] holding means, such as a pressure sensitive adhesive or water soluble glue, is applied between the outer narrow side panel sections 116 and 118 and the panel sections joining them together and forming the rectangular shaped leg-wrap supports 106." (Brandes, Col. 9, lines 29-45).

Regarding claim 5, the Examiner has taken the position that reference numbers 118 and 116 of Brandes' Fig 13 teach "the free longitudinal edges of a sheet of material bent to the said tubular element configuration overlap and define a double wall at one side of the tubular element. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to replace the tubular elements of Baker with the double walled bent folded tubular member, as taught by Brandes, for the purpose of joining the loose ends of the flat sheet together to form and strengthen the tubular element (column 9, lines 41-46)." Applicant respectfully submits that for at least the reasons set forth above, Brandes does not appear to teach or suggest the feature "a sheet of thermoplastic material heat-molded to form bends defining the generally rectangular cross-sectional configuration" Instead, Brandes appears to teach "support members 106 are fabricated by scoring a multiply corrugated leg-wrap sheet 107 on one side and bending the sheet 107 around the plurality of spaced apart and parallel scores forming creases 108 therealong and panel sections there inbetween." Thus, the motivation to combine the Baker and Brandes references provided by the Examiner (i.e., to replace the tubular elements of Baker with the double walled bent folded tubular member, as taught by Brandes, for the purpose of joining the loose ends of the flat sheet together to form and strengthen the tubular element) does not appear to apply, since Brandes accomplishes "joining the loose ends of the flat sheet together to form and strengthen the (double walled) tubular element" using "[a] holding means, such as a pressure sensitive adhesive or water soluble glue, is applied between the outer narrow side panel sections 116 and 118 and the panel sections joining them together and forming the rectangular shaped leg-wrap supports 106."

Regarding claim 7, the Examiner states "Baker discloses that one end of each tubular element has integral flange formations formed by bends in the material at right angles to those defining the tubular shape." Applicant respectfully disagrees that Baker discloses such features. As discussed in section C of this response, the Examiner has apparently interpreted Baker's sleeve inserts feature of "sidewall 30 [having] an angular 'J' shaped foot 60 forming a channel 62 external to and along the length of a bottom edge 36 of sidewall 30" (Baker, Col. 3, line 65) to be equivalent to the feature "one end of each tubular element has integral flange formations formed by bends in the thermoplastic material at right angles to those defining the tubular shape." Applicant respectfully disagrees.

In light of the arguments set forth above, Applicant submits that the combination of Baker's teachings with those of Brandes fail to teach or suggest the features found in claims 1 – 7 and respectfully requests that the 35 U.S.C. §103 rejections thereon be withdrawn.

Claim 9 was rejected under 35 U.S.C. §103 (a) as allegedly being obvious over Baker as applied to claim 1 above in view of U.S. Pat No. 3,329,103 to Cohen ("Cohen"). The Examiner states "Cohen teaches a tubular member (Cohen Fig 1 reference number 2) with a perforation (3) that enables tubular elements to be detachably rigidly held (column 4, lines 34-35). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the tubular elements of Baker to include perforations, as taught by Cohen, for the purpose of better retaining them in place." Applicant respectfully disagrees.

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations.

The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

Claim 9 includes the feature "in which the opposite end of each tubular element has a perforation through the material for operatively receiving a fastener attaching said opposite end to the adjacent wall of the bulk bag" in combination with the features found in amended claim 1. Applicant respectfully submits that the combination of references fails to teach or suggest the totality of features present in claim 9, including but not

limited to at least the feature "operatively receiving a fastener attaching said opposite end to the adjacent wall of the bulk bag." Applicant further submits that one having ordinary skill in the art would not be motivated to modify Baker's "tubular elements" with Cohen's "perforation (3) that enables tubular elements to be detachably rigidly held" for the purpose of retaining them in place since, as discussed above, Baker's tubular elements are coupled to the bottom of the bulk bag where they function in a supportive capacity. Modifying Baker's tubular elements with Cohen's perforation does not result in the presently claimed feature "each tubular element has a perforation through the material for operatively receiving a fastener attaching said opposite end to the adjacent wall of the bulk bag."

Applicant therefore respectfully submits that the combination of Baker and Cohen as suggested has not established a *prima facie* case of obviousness of claim 9, since none of three basic requirements necessary to support such a case have been satisfied; namely, there does not appear to be a suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings, there is no reasonable expectation that the proposed modification would be successful, and finally, the combined references fail to teach or suggest all the features of claim 9. Applicant therefore respectfully submits that claim 9 in unobvious and patentable over the combined references.

Claim 10 was rejected under 35 U.S.C. §103 (a) for allegedly being unpatentable over Baker in view of Brandes as applied to claim 2, and further in view of Cohen. The Examiner takes the position that "Cohen teaches a tubular member (Cohen Fig 1 reference number 2) with a perforation (3) that enables tubular elements to be detachably rigidly held in place (column 4, lines 34-35). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the tubular elements of Baker as modified to include perforations, as taught by Cohen, for the purpose of better retaining them in place." (Office Action, page 6). Applicant respectfully disagrees with this rejection.

Claim 10 includes the feature "which the opposite end of each tubular element has a perforation through the material for operatively receiving a fastener attaching said opposite end to the adjacent wall of the bulk bag" in comabination with the features set forth in claim 2. For at least the reasons set forth above regarding claim 2, and further for the reasons discussed above with regard to claim 9, Applicant submits that neither the combination of Baker with Brandes, nor the combination of Baker with Cohen appears to teach or suggest the totality of features set forth in amended claim 2 or 10, respectively.

Claim 11 was rejected under 35 U.S.C. §103 (a) for allegedly being unpatentable over Baker as applied to claim 1 above and further in view of U.S. Patent No. 6,533,121 to Ross ("Ross"). The Examiner states: "Ross discloses a bulk bag (Ross Fig 1) where the laterally spaced sleeves (18) are formed within the general rectangular shape of the bag such that the bottom of the bag is substantially coplanar with a bottom wall of each of the spaced sleeves (Fig 1 generally). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the bulk bag of Baker so that the bottom of the bag was formed substantially coplanar with a bottom wall of the lateral sleeves, as taught by Ross, for the purpose of better stabilizing the bag when stacked for storage or when the bag is filled with bulk goods (column 2, lines 54-61)." Applicant respectfully disagrees with this rejection.

If proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. *In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984). If the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious. *In re Ratti*, 270 F.2d 810, 123 USPQ 349 (CCPA 1959).

For at least the reasons set forth above in section C of this response, Applicant submits that modifying Baker's bulk bag with Ross' "bulk bag (Ross Fig 1) where the laterally spaced sleeves (18) are formed within the general rectangular shape of the bag such that the bottom of the bag is substantially coplanar with a bottom wall of each of the spaced sleeves" so that the bottom of the bag was formed substantially coplanar with a bottom wall of the lateral sleeves for the purpose of better stabilizing the bag when stacked for storage or when the bag is filled with bulk goods would change the principle of operation of Baker's bulk bag by rendering the sleeves (and by extension the tubular inserts unsatisfactory for their intended use (see e.g., "[r]eferring to FIG. 3, first insert 28 is inserted into sleeve 26 so that top member 32 lies in a substantially coplanar attitude with and supports bottom 18 of body 16" (Baker, Col. 3, lines 15-18) and "[w]hen second insert 52 is inserted into sleeve 26, top member 32 lies in a substantially coplanar attitude with and supports bottom 18 of body 16" (Baker, Col. 4, lines 7-10)). Applicant therefore respectfully submits that one of ordinary skill in the art would not be motivated to combine the reference teachings as suggested.

Claim 12 was rejected under 35 U.S.C. §103 (a) for allegedly being unpatentable over Baker in view of Brandes as applied to claim 2 above and further in view of Ross. The Examiner suggests that "it would

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have been obvious to one of ordinary skill in the art at the time the invention was made to further modify the

modified bulk bag of Baker so that the bottom of the bag was formed substantially coplanar with a bottom wall

of the lateral sleeves, as taught by Ross, for the purpose of better stabilizing the bag when stacked for storage or

when the bag is filled with bulk goods (column 2, lines 54-61)." Applicant respectfully disagrees with

this rejection and submits that for at least the reasons set forth above with respect to claim 2, the

combination of Baker with Brandes does not appear to teach or suggest the totality of features present

in amended claim 2. Furthermore, for at least the reasons set forth above with respect to claim 11,

Applicant submits that the Baker and Ross references are not combinable as suggested, since the

proposed modification would change the operation of Baker's bulk bag by rendering the sleeves

unsatisfactory for their intended use.

In light of the above, Applicant respectfully submits that the claims are patentable over the cited

prior art references under 35 U.S.C. §103 (a), and respectfully requests that the rejections on these

grounds be withdrawn.

F. Summary

Based on the above, Applicant submits that all claims are now in condition for allowance.

Favorable reconsideration is respectfully requested. Applicant hereby requests a one-month extension of

time for this response, and Applicant has attached a Fee Authorization in the amount of \$60 to cover the

cost associated with such an extension. Applicant believes no other fees are required with this response.

Should any fees be required or if any fees have been overpaid, please appropriately charge or credit those

fees to Meyertons, Hood, Kivlin, Kowert & Goetzel, P.C. Deposit Account Number 50-1505/5991-

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Respectfully submitted,

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